REMARKS/ARGUMENTS

Claims 1,4-13,15,16 and 20 remain in this application, wherein claims 8-10 have been objected to as dependent upon a rejected base claim but would be allowable if placed into their respective independent claims including intervening subject matter.

The examiner has rejected claims 1,4-7,11-13,15,16 and 20 under 35 U.S.C. 103(a) as being unpatentable over Yerbury et al. (U.S. Patent No. 5,063,560) in view of Rotstein et al. (U.S. Patent No. 6,091,759).

The patent of Yerbury teaches a method to receive RF signals from several vehicles and locate position of each of these vehicles using triangulation techniques, col. 1 lines 6-9, and col. 2 lines 3-13. Use of spread spectrum signals mitigates the errors associated with multi-path interference, col. 2 lines 14-16. Specific embodiment of Yerbury's process is a form of Frequency Domain Multiple Access (FDMA). Of particular interest is the admission that Yerbury's spread spectrum RF signals contain no

data, as location techniques have no use for data, col. 2 lines 16-19, and col. 3 line 67 through col. 4 line 2.

Examiner's reliance on passage in col. 8 lines 56-68 and col. 9 lines 1-18, to teach a plurality of information signals is carried on one of a plurality of carrier frequencies, is misplaced. Rather, the cited passage of independent claim 10 discloses a frequency division of incoming signals to multiplex these signals into an easily identifiable series of channels, wherein the channels are passed through a filter to remove interference and subsequently analyzed to determine a unique location of each vehicle transmitting their signal. Alleged down conversion of col. 7 lines 15-65 to a common frequency spectrum is in fact a description of amplification, two-stage mixing, filtering and combining with a timing signal before being sent to a remote computer to deduce vehicle locations. Alleged decoding of intermediate frequency to extract data is not taught in the cited partial claim 27 of col. 11 lines 24-37, rather this section describes the process flow of Fig. 5 to eliminate noise and uniquely identify location of each vehicle sending a signal, in addition to the admission of Yerbury that no data is carried by these signals. In regard to applicant's claim 1, Yerbury does not extract any data from the decoding process as Yerbury's signals

contain no data, and as the resultant signals are not sent to the fingers of a RAKE receiver to demodulate the plurality of signals.

The patent of Rotstein discloses a spreader to combine Walsh codes and PN codes using different modes for direct spread transmission and multi-carrier transmission for CDMA, col. 2 lines 19-32. Rotstein teaches a true communication system, as opposed to Yerbury's location system, and CDMA as opposed to Yerbury's FDMA, Rotstein contains Walsh codes in addition to PN codes wherein Yerbury only teaches the use of PN codes. These are distinct systems, with no motivation to combine their respective teachings. The alleged teaching of multi-carrier signals requires the use of Walsh codes to provide differentiation, and the absence of Walsh codes in Yerbury renders such a combination technically unfeasible.

Neither of the cited references, either alone or in combination, teaches the claimed invention of a receiver to decode a multi-carrier signal display.

In regard to claim 5, Yerbury does not decode to extract data, as Yerbury's signals are used to determine location and contain no data, see col. 2 lines 16-19, and col. 3 line 67 through col. 4 line 2.

In regard to claim 6, the cited passage of col. 7 lines 30-33 only teaches center frequency offset for the local oscillators and carrier frequencies, and these center frequency offsets obey equation 3, found in col. 5 line 29, wherein these frequency offsets are not substantially the same as f_R, wherein f_R is a function of code repetition period which is decidedly distinct for the local oscillators and carrier frequencies, col. 3 lines 22-24.

In regard to claim 7, the only reference to an intermediate frequency in Yerbury is found in discussion of Fig. 5 in col. 7 lines 23-26, yet the decoding does not extract data and does not read on the claimed invention.

In regard to claim 11, the RF signal received from a vehicle, not a base station, col. 2 lines 3-6 and Fig. 1.

In regard to claim 12, as seen in Fig. 5 of Yerbury, the narrow band filter 49 is located after down-converting the IF.

In regard to claim 13, Yerbury does not constitute a mobile telephone unit, and likewise does not extract data in a down-conversion operation.

In regard to claim 15, the down conversion does not distract data and does not read on the claimed invention.

In regard to claim 16, Yerbury does not present an oscillator to generate a plurality of oscillator signals, rather Yerbury discloses a series of oscillators each generating on a single oscillator frequency, col. 7 lines 28-33, and Fig. 5.

Claim 20 is rejected under 35 U.S.C. 102(a) as being anticipated, or in the alternative, under 35 U.S.C. 103(a) as obvious over Rotstein (U.S. Patent No. 6,091,749)

Rotstein solves the problem of dual mode operation of a CDMA receiver in a different fashion than the presently claimed invention. Rotstein teaches a single spreader, in place of multiple spreaders, for a CDMA receiver where the Walsh code is varied and PN codes remain constant for multi-carrier operation, but PN codes are not held constant for single carrier operations. In distinction to Rotstein, the present invention uses a single oscillator generating multiple oscillator frequencies for multi-carrier operation, and a single oscillator frequency for single carrier operations. Rotstein manipulates Walsh and PN codes to

reduce system requirements, while the present invention varies oscillator frequencies. Rotstein's solution is neither anticipatory or obvious of the present invention, in fact, the solutions are mutually exclusive, each providing a distinct solution to the problem of addressing single and multi-carrier transmissions.

Applicants note with appreciation the indication of allowable subject matter of claims 8-10, but as noted above the cited references are deemed deficient in rendering the present invention obvious.

Accordingly, the rejection of claims 1,4-13,15,16 and 20 is clearly distinguished over the cited art and these rejections should be withdrawn. Present claims 1,4-13,15,16 and 20 are believed to be in allowable form having overcome all existing rejections set forth within the office action of December 23, 2003. Therefore, the applicant respectfully requests allowance of all the claims and issuance of a notice of allowance.

Respectfully submitted,

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